

FIGURE 1

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graph TD
    201([START]) --> 202[STORE NEW SEQUENCE TO A MEMORY]
    202 --> 204[OPEN DATABASE OF SEQUENCES]
    204 --> 206[READ FIRST SEQUENCE IN DATABASE]
    206 --> 210[PERFORM COMPARISON OF NEW SEQUENCE AND STORED SEQUENCE]
    210 --> 212{SAME?}
    212 -- YES --> 214[DISPLAY STORED SEQUENCE NAME TO USER]
    212 -- NO --> 218{MORE SEQUENCES IN DATABASE?}
    214 --> 218
    218 -- YES --> 224[GO TO NEXT SEQUENCE IN DATABASE]
    224 --> 210
    218 -- NO --> 220([END])
  
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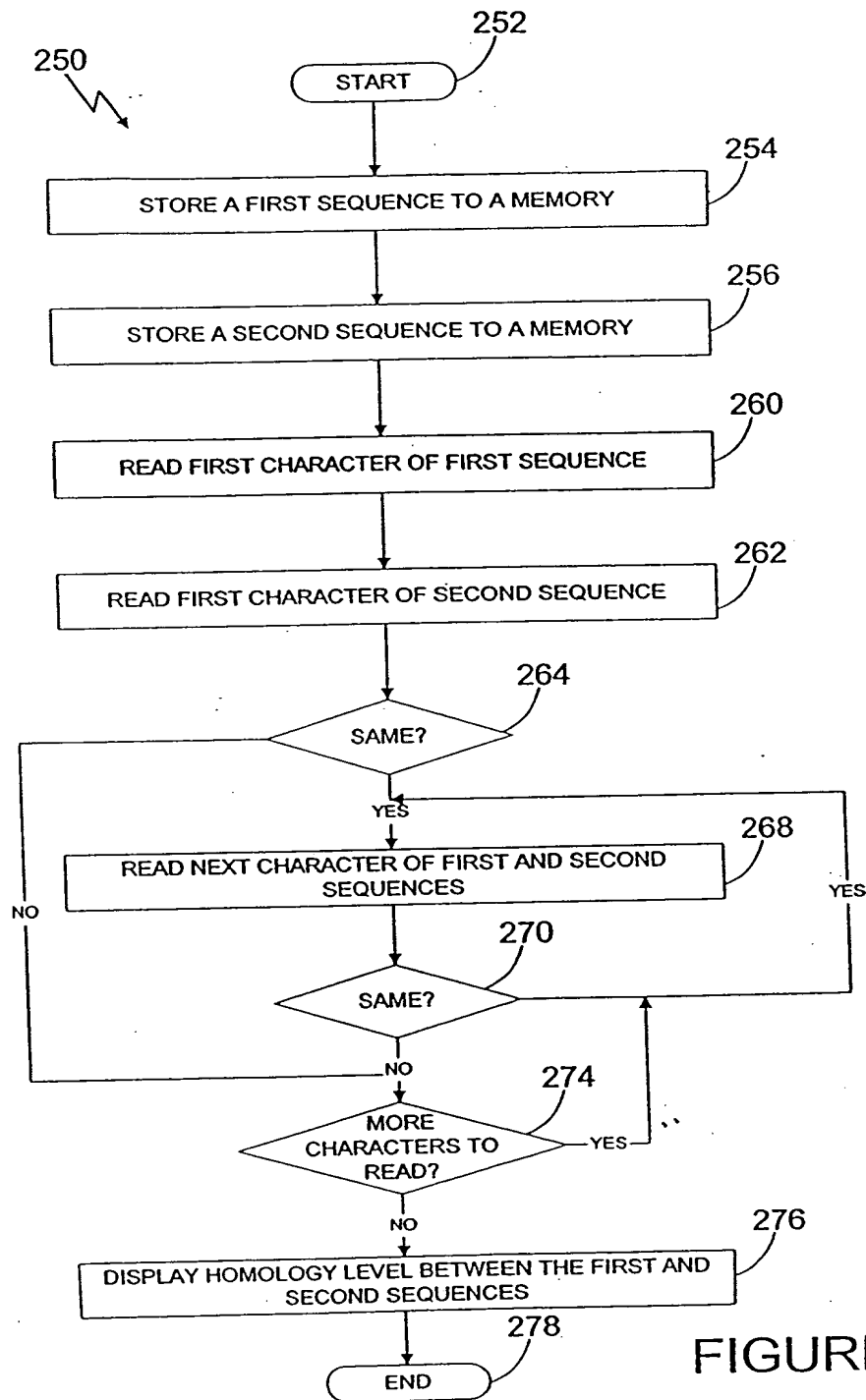


FIGURE 3

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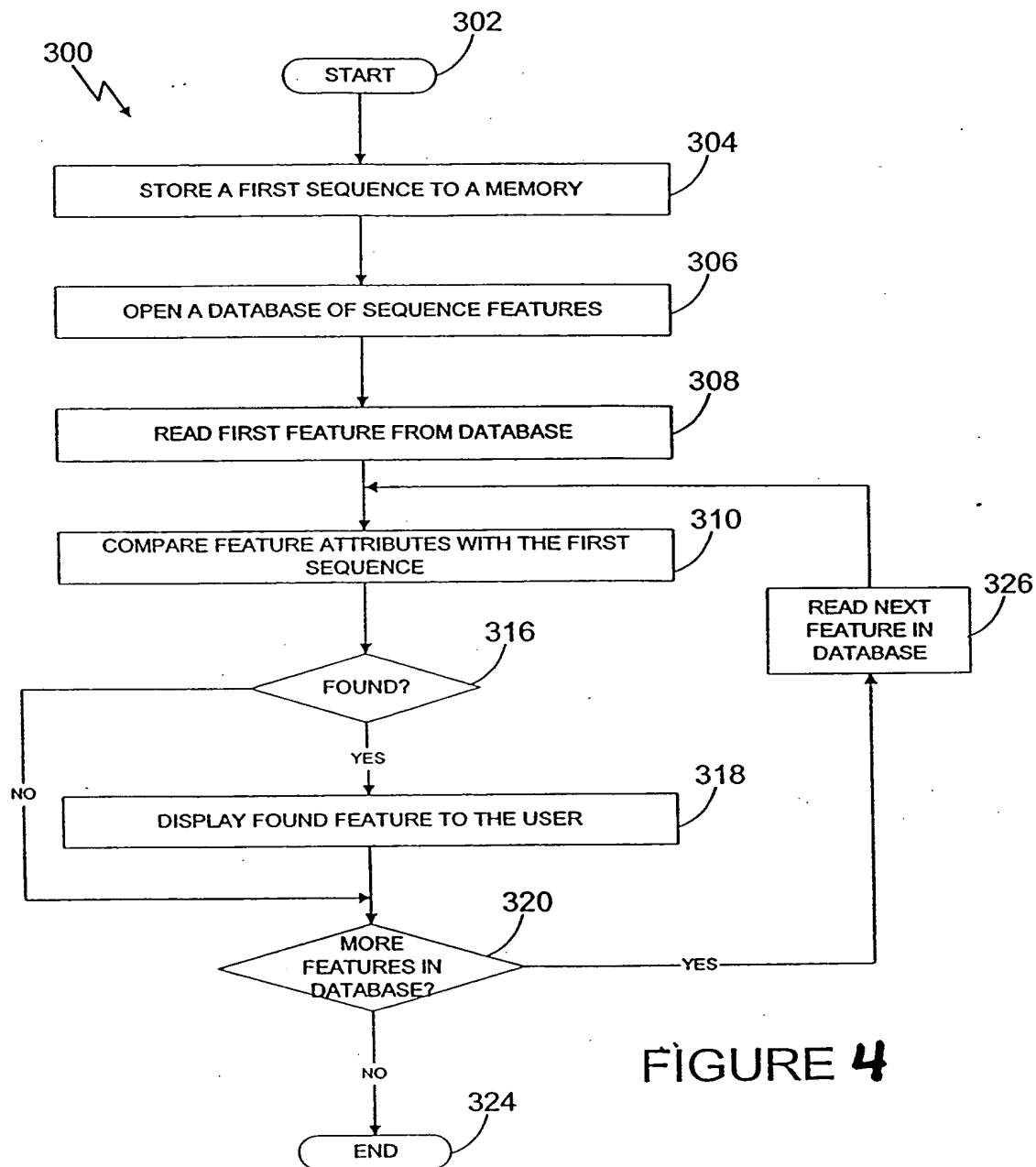


FIGURE 4

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ATG GGT GTT GAT CCT TTT GAA AGG AAC AAA ATA TTG GGA AGA GGC ATT AAT ATA
M G V D P F E R N K I L G R G I N I

GGA AAT GCG CTT GAA GCA CCA AAT GAG GGA GAC TGG GGA GTG GTG ATA AAA GAT
G N A L E A P N E G D W G V I K D

GAG TTC TTC GAC ATT ATA AAA GAA GCC GGT TTC TCT CAT GTT CGA ATT CCA ATA
E F F D I I K E A G F S H V R I P I

AGA TGG AGT ACG CAC GCT TAC GCG TTT CCT CCT TAT AAA ATC ATG GAT CGC TTC
R W S T H A Y A F P P Y K I M D R F

TTC AAA AGA GTG GAT GAA GTG ATA AAC GGA GCC CTG AAA AGA GGA CTG GCT GTT
F K R V D E V I N G A L K R G L A V

GCT ATA AAT ATT CAT CAC TAC GAG GAG TTA ATG AAT GAT CCA GAA GAA CAC AAG
A I N I H H Y E E L M N D P E E H K

GAA AGA TTT CTT GCT CTT TGG AAA CAA ATT GCT GAT CGT TAT AAA GAC TAT CCC
E R F L A L W K Q I A D R Y K D Y P

FIG. 5A

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GAA ACT CTA TTT TTT GAA ATT CTG AAT GAA CCT CAC GGA AAT CTT ACT CCG GAA
E T L F F E I L N E P H G N L T P E

AAA TGG AAT GAA CTG CTT GAG GAA GCT CTA AAA GTT ATA AGA TCA ATT GAC AAA
K W N E L L E E A L K V I R S I D K

AAG CAC ACT ATA ATT ATA GGC ACA GCT GAA TGG GGG GGT ATA TCT GCC CTT GAA
K H T I I I G T A E W G G I S A L E

AAA CTG TCT GTC CCA AAA TGG GAA AAA AAT TCT ATA GTT ACA ATT CAC TAC TAC
K L S V P K W E K N S I T V I H Y Y

AAT CCT TTC GAA TTT ACC CAT CAA GGA GCT GAG TGG GTG GAA GGA TCT GAG AAA
N P F E F T H Q G A E W V E G S E K

TGG TTG GGA AGA AAG TGG GGA TCT CCA GAT GAT CAG AAA CAT TTG ATA GAA GAA
W L G R K W G S P D D Q K H L I E E

TTC AAT TTT ATA GAA GAA TGG TCA AAA AAG AAC AAA AGA CCA ATT TAC ATA GGT
F N F I E E W S K K N K R P I Y I G

FIG. 5B

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GAG TTT GGT GCC TAC AGA AAA GCT GAC CTT GAA TCA AGA ATA AAA TGG ACC TCC
E F G A Y R K A D L E S R I K W T S

TTT GTC GTT CGC GAA ATG GAG AAA AGG AGA TGG AGC TGG GCA TAC TGG GAA TTT
F V V R E M E K R R W S W A Y W E F

TGT TCC GGT TTT GGT GTT TAT GAT ACT CTG AGA AAA ACC TGG AAT AAA GAT CTT
C S G F G V Y D T L R K T W N K D L

TTA GAA GCT TTA ATA GGA GGA GAT AGC ATT GAA TAA
L E A L I G G D S I E *

FIG. 5C